

Energy Concepts for Fatigue in Airport Pavements

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Abstract

Dissipated energy ratio approach is used as a new concept to analyze asphalt fatigue behavior in airport pavements. A unique relationship between DER and fatigue damage is found regardless of different loading modes and test controls. Fatigue endurance limit is examined through lab tests and DER analysis. Finally, overload effect on fatigue of airport pavement is explained with the consideration of healing.